



# Best Management Practices for Construction and Development Projects Goldstripe Darter *Etheostoma parvipinne*

**Common name** • Goldstripe Darter  
**Scientific name** • *Etheostoma parvipinne*  
**Federal status** • None  
**State status** • Endangered

## Purpose and Use

The information in this document is to be used to help avoid and minimize species impacts due to construction practices. It is not intended to be used as a guide to manage habitat for a given species. If that is the goal, please contact the Department of Conservation for habitat management information. Because every project and location differs, following the recommendations within this document does not ensure that impacts will not occur to the species and additional information might be required in certain instances. Following the recommendations within this document does not complete Endangered Species Act consultation that may be necessary for species listed under the federal Endangered Species Act; please contact the U.S. Fish and Wildlife Service for more information.

## Ecology

In southeastern Missouri, the Goldstripe Darter is found in only a few springs and small, shallow spring-fed streams with closed canopies. This closed-canopy cover is important in helping to maintain cooler water temperatures and restrict algal growth. The Goldstripe Darter prefers long, shallow pools with a sandy substrate and detrital depositions where it feeds on small aquatic invertebrates. Adults of this species range in length from 2.3 to 3.2 inches. Spawning occurs in March and April but may extend into May. Eggs are attached singly to in-channel woody material, aquatic plants and plant roots above the substrate.

## Reasons for Decline

Although it is likely that Goldstripe Darters have always been rare in Missouri, habitat alteration through excessive siltation, restriction of channel flow, water impoundment and removal of riparian vegetation would be detrimental to this fish. Agriculture and urban development can lower the water table and increase the influx of non-point source pollution. Because of the species' restricted distribution, poor management practices could lead to the rapid extirpation of Goldstripe Darters from Missouri.

## Specific Recommendations

The Goldstripe Darter has specialized and exacting habitat requirements. Any projects that alter water depth

or gradient should be avoided in springs and streams that contain habitat for this fish.

- No work should be allowed below the high bank of the stream between March 1 and May 15.
- Sheet piling for coffer dams for the construction of bridge piers may be placed after May 15, but should be removed prior to March 1 of the following year. Removal of coffer dams should be coordinated with appropriate Missouri Department of Conservation personnel.
- Avoid installation of permanent crossing of streams; where crossing is unavoidable, a temporary crossing that does not restrict flow is recommended.
- Avoid removing or altering the riparian corridor near springs and along streams.
- Erosion and sediment controls should be strictly implemented and monitored for the duration of the project.
- Dams and other impoundments should not be constructed in those streams where this species occurs.
- For permanent road crossings, use of a span bridge would be more appropriate than placement of a culvert due to the potential of migration restriction for this species.

## General Recommendations

Refer to Management Recommendations for Construction Projects Affecting Missouri Streams and Rivers.

If your project involves the use of Federal Highway Administration transportation funds, these recommendations may not fulfill all contract requirements. Please contact the Missouri Department of Transportation at 573-526-4778 or [www.modot.mo.gov/ehp/index.htm](http://www.modot.mo.gov/ehp/index.htm) for additional information on recommendations.

## Information Contacts

For further information regarding regulations for development near springs or streams, contact:  
For species information:

[Missouri Department of Conservation](http://www.modot.mo.gov/ehp/index.htm)

Resource Science Division  
P.O. Box 180  
2901 W. Truman Blvd  
Jefferson City, MO 65102-0180  
Telephone: 573/751-4115

For species information and Endangered Species Act  
Coordination:

[U.S. Fish and Wildlife Service](#)

Ecological Services  
101 Park Deville Drive, Suite A  
Columbia, MO 65203-0007  
Telephone: 573/234-2132

For Clean Water Act Coordination:

[Missouri Department of Natural Resources](#)

Water Protection Program  
P.O. Box 176  
Jefferson City, MO 65102-0176  
Telephone: 573/751-1300, 800/361-4827

[U.S. Army Corps of Engineers](#)

Regulatory Branch  
700 Federal Building  
Kansas City, MO 64106-2896  
Telephone: 816/983-3990

[U.S. Environmental Protection Agency](#)

Water, Wetlands, and Pesticides Division  
901 North 5th Street  
Kansas City, KS 66101  
Telephone: 913/551-7307

## **Disclaimer**

These Best Management Practices were prepared by the Missouri Department of Conservation with assistance from state and federal agencies, contractors and others to provide guidance to those people who wish to voluntarily act to protect wildlife and habitat. Compliance with these Best Management Practices is not required by the Missouri wildlife and forestry law nor by any regulation of the Missouri Conservation Commission. Other federal laws such as the Clean Water Act and the Endangered Species Act, and state or local laws need to be considered for construction and development projects, and require permits and/or consultation with the appropriate agency. Following the recommendations provided in this document will help reduce and avoid project impacts to the species, but impacts may still occur. Please contact the appropriate agency for further coordination and to complete compliance requirements.